

How Can Land Registries Better Implement Blockchain?

Blockchain has the potential to revolutionize portions of the land administration and real estate sectors. But blockchain-for-land has suffered from uneven growth over the past few years. Projects are often undertaken by governments who are enthusiastic about the technology but fuzzy on how it actually works.

It may be tempting to experiment with new technology, but time, energy, and resources are not unlimited. For the people and places that could benefit most from blockchain, the misdirection of resources translates into missed opportunities. To more successfully implement a blockchain-based land solution, governments must first think more critically about their capabilities, needs, and ecosystems. Here's how:

Get Tech Experts and Land Experts in the Same Room

Blockchain is a database technology at its most basic, while land administration is a public service with political, social, and economic impacts. So the stakeholders in the room must understand both technology and land. Those are usually different sets of people.

A blockchain-for-land project should engage both political and technical stakeholders from the outset. Senior land officials can

provide strategic vision, and also possess the experience to spot unintended consequences and risks related to blockchain. IT professionals understand technological nuances and can better evaluate blockchain as a back-end technology. Outreach to the broader real estate community can promote adoption of blockchain as a tool to improve business operations.

Identify the Problem You Are Trying to Solve, and Determine Whether Blockchain can Solve that Problem

Stakeholders must work together to answer the question: What is limiting the functionality of the registry?

There are many possible responses, ranging from unrecorded land rights to manipulation of records, poor service delivery, and sloppy paper-based storage. Blockchain cannot solve every issue, and identifying the specific problem to be solved will help determine whether blockchain is an appropriate answer.

Blockchain will **not** solve problems related to inaccurate, outdated, or nonexistent records. Nor is the technology helpful in cases where records are not digitized. It cannot rewrite laws or improve institutional capacity, either.

On the other hand, blockchain is **useful** for solving problems related to corruption, lack of trust, inefficient services, and insecure data.

Check if Blockchain can Scale in Your Environment

Pilot projects are a good first step to test a solution, but many blockchain-for-land projects struggle to expand because the enabling environment—the legal, bureaucratic, financial, and political conditions—does not facilitate scaling.

The following institutional factors are important for scaling a blockchain project:

- A registry that is either centrally administered, or a system within which local land offices maintain technical interoperability and are subject to the same laws and regulations.
- Responsive legislators who can change laws and regulations to allow for land administration and/or real estate transactions to take place in the digital realm.
- Buy-in from entrenched stakeholders profiting from the current system, which can be difficult, but is possible through demonstrating the long-term benefits of the reforms.
- The existence of digitized records, easing the migration of data to a blockchain-based system.

